



CASE CO/2-22210/US/A

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

Dolores DeCarmine
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Dolores DeCarmine
Signature

6/23/04
Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PATENT NO: 6,737,549 OF

JEAN-PIERRE WOLF ET AL

ISSUED: MAY 18, 2004

APPLICATION NO: 09/871,373

FILED: MAY 31, 2001

FOR: ORGANOMETALLIC

MONOACYLALKYLPHOSPHINES

Certificate
JUN 30 2004
of Correction

Attention: Certificate of Correction Branch

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

REQUEST FOR CERTIFICATE OF CORRECTION

Pursuant to 37 CFR 1.322, it is hereby respectfully requested that a Certificate of Correction be issued for United States Patent 6,436,235 containing the corrections set forth on the appended Form PTO 1050.

Each of the following errors are believed to be attributable to the Patent and Trademark Office as is evident from the table on Page 2:

<u>Location and/or Error in Printed Patent</u>	<u>Location of Support</u>
<p><u>Column 88</u>, claim 4, line 1, replacement of "compound of the" with "process for the preparation of bisacylphosphine oxides or sulfides of"</p> <p><u>Column 90</u>, line 25, replacement of formula</p> $\begin{array}{c} \text{O} & & \text{O} \\ \parallel & & \parallel \\ \text{Ar}-\text{C} & -\text{P} & -\text{C}-\text{Y}_1 \\ & & \\ & \text{R}_6 & \end{array}$ <p style="text-align: center;">with</p> $\begin{array}{c} \text{O} & & \text{O} \\ \parallel & & \parallel \\ \text{---}\text{Y}_2-\text{C} & -\text{P} & -\text{C}-\text{Ar} \\ & & \\ & \text{R}_6 & \end{array}$	<p>See new claim 19 (now renumbered claim 4) on page 26 of Amendment, dated April 23, 2003.</p> <p>See second formula on line 13 of page 28 of Amendment, dated April 23, 2003 – continuation of new claim 19 (now renumbered claim 4).</p>
<p><u>Column 91</u>, claim 5, line 1 delete the term "new"</p>	<p>See new claim 20 (now renumbered claim 5) on page 29 of Amendment, dated April 23, 2003.</p>

Enclosed are copies of the first page and pages 26, 28 and 29 of Amendment, dated April 23, 2003 showing the correct version.

Attached in duplicate is Form PTO-1050, with at least one copy being suitable for printing.

As will be noted from the prosecution history of the application, these errors were not ascribable to the patentees. However, if it should be determined that the filing of this Request necessitates the payment of any fee, authorization is hereby given to debit patentees Deposit Account No. 03-1935.

Respectfully submitted,



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Encls.: Form PTO-1050 (2) and pages 1, 26, 28 and 29 of Amendment, dated April 23, 2003
Date:

JUN 23 2004

- 2 JUL 2004

E_1 is O, S or NR₄₃; and

R₄₃ is C₁-C₈alkyl, phenyl or cyclohexyl.

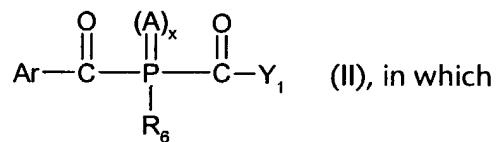
15. (original) A process for the photopolymerization of nonvolatile monomeric, oligomeric or polymeric compounds having at least one ethylenically unsaturated double bond, which comprises irradiating a composition according to claim 12 with light in the range from 200 to 600 nm.

16. (original) A process according to claim 15 for the preparation of pigmented and nonpigmented surface coatings, printing inks, screen printing inks, offset printing inks, flexographic printing inks, powder coatings, printing plates, adhesives, dental materials, optical waveguides, optical switches, colour testing systems, composite materials, gel coats, glass-fibre cable coatings, screen printing stencils, resist materials, colour filters, for the encapsulation of electrical and electronic components, for the preparation of magnetic recording materials, of three-dimensional objects by means of stereolithography, of photographic reproductions, image recording material, for holographic recordings, for the preparation of decolouring materials, for the preparation of image recording materials using microcapsules.

17. (original) A coated substrate which has been coated on at least one surface with a composition according to claim 12.

18. (original) A process for the photographic production of relief images in which a coated substrate according to claim 17 is subjected to imagewise exposure and then the unexposed portions are removed with a solvent.

19. (new) A process for the preparation of bisacylphosphine oxides or sulfides of formula II

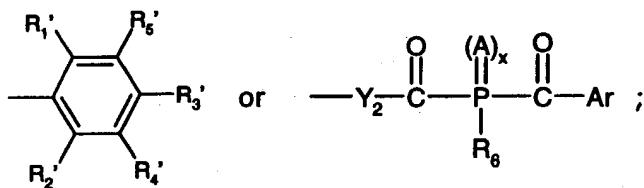


A is O or S;

R_{11} is H, C_1 - C_{20} alkyl, C_2 - C_{20} alkenyl, C_3 - C_8 cycloalkyl, phenyl, benzyl or C_2 - C_{20} alkyl which is interrupted once or more than once by nonconsecutive O atoms and which is unsubstituted or substituted by OH and/or SH;

R_{12} and R_{13} independently of one another are hydrogen, C_1 - C_{20} alkyl, C_3 - C_8 cycloalkyl, phenyl, benzyl or C_2 - C_{20} alkyl which is interrupted once or more than once by O or S and which is unsubstituted or substituted by OH and/or SH; or R_{12} and R_{13} together are C_3 - C_5 alkylene which is uninterrupted or interrupted by O, S or $NR_{14}i$;

Y_1 is C_1 - C_{18} alkyl which is unsubstituted or substituted by one or more phenyl; C_1 - C_{18} -halogenoalkyl; C_2 - C_{18} alkyl which is interrupted once or more than once by O or S and which can be substituted by OH and/or SH; unsubstituted C_3 - C_{18} cycloalkyl or C_3 - C_{18} cycloalkyl substituted by C_1 - C_{20} alkyl, OR_{11} , CF_3 or halogen; C_2 - C_{18} alkenyl; or Y_1 is OR_{11} , $N(R_{12})(R_{13})$ or one of the radicals



or Y_1 is cyclopentyl, cyclohexyl, naphthyl, anthracyl, biphenyl or an O-, S- or N-containing 5- or 6-membered heterocyclic ring, where the radicals cyclopentyl, cyclohexyl, naphthyl, anthracyl, biphenyl and 5- or 6-membered heterocyclic ring are unsubstituted or substituted by halogen, C_1 - C_4 alkyl and/or C_1 - C_4 alkoxy;

Y_2 is a direct bond; unsubstituted or phenyl-substituted C_1 - C_{18} alkylene; unsubstituted C_4 - C_{18} -cycloalkylene or C_4 - C_{18} cycloalkylene substituted by C_1 - C_{12} alkyl, OR_{11} , halogen and/or phenyl; unsubstituted C_5 - C_{18} cycloalkenylene or C_5 - C_{18} cycloalkenylene substituted by C_1 - C_{12} alkyl, OR_{11} , halogen and/or phenyl; unsubstituted phenylene or phenylene substituted one to four times by C_1 - C_{12} alkyl, OR_{11} , halogen, $-(CO)OR_{14}$, $-(CO)N(R_{12})(R_{13})$ and/or phenyl;

or Y_2 is a radical or , where these radicals are

unsubstituted or are substituted one to four times on one or both aromatic ring(s) by C_1 - C_{12} alkyl, OR_{11} , halogen and/or phenyl;

Y_3 is O, S, SO_2 , CH_2 , $C(CH_3)_2$, $CHCH_3$, $C(CF_3)_2$, CO or a direct bond;

R_{14} is hydrogen, phenyl, C_1 - C_{12} alkyl or C_2 - C_{12} alkyl which is interrupted once or more than once by O or S and which can be substituted by OH and/or SH;

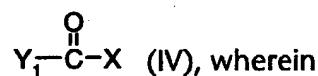
R_1' and R_2' independently of one another have the same meanings as given for R_1 and R_2 ; and

R_3' , R_4' and R_5' independently of one another have the same meanings as given for R_3 , R_4 and R_5 ;

or in each case two of the radicals R_1' , R_2' , R_3' , R_4' and R_5' together form C_1 - C_{20} alkylene which may be interrupted by O, S or $-NR_{14}$;

with the proviso that Y_1 is not identical to Ar;

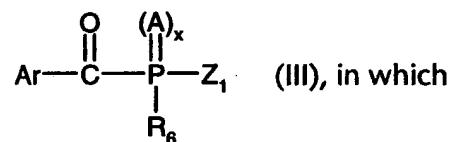
by reacting an alkylacylphosphine compound of formula I according to claim 1 with an acid halide of the formula (IV)



X is Cl or Br;

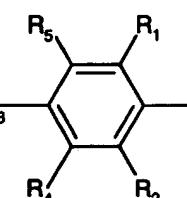
in a molar ratio of about 1:1, optionally in a solvent, at a reaction temperature from about -60°C to about $+120^\circ\text{C}$ to give a phosphine compound of formula II, wherein x is 0, and optionally, subsequent oxidation or sulfurization of the resulting phosphine compound to give the corresponding oxide or sulfide compound wherein x is 1 and A is O or S.

20. (new) A process for the preparation of monoacylphosphine oxides or sulfides of formula III



A is O or S;

x is 0 or 1;

Ar is a group ; or Ar is cyclopentyl, cyclohexyl, naphthyl, anthracyl, biphenyl or an O-, S- or N-containing 5- or 6-membered heterocyclic ring, where the radicals

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,737,549
DATED : MAY 18, 2004
INVENTOR(S) : JEAN-PIERRE WOLF ET AL.

It is certified that there are errors in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

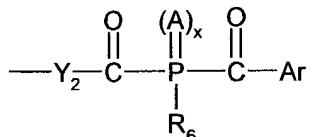
In Column 88

Line 1 of claim 4 should read:

A process for the preparation of Bisacylphosphine oxides or sulfides of Formula II

In Column 90

Line 25 should read:



In Column 91

Delete the term "new" in line 1 of claim 5.

MAILING ADDRESS OF SENDER:

PATENT NO.6,737,549

(No. of add'l. Copies (3))

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